

## UNIV 301 Introduction to Analytical Chemistry

Experiential Learning Sample Program Ver. 2

## Student Assessment Methods

Student assessment methods used in this course are listed below.

	Student Assessment Method
1	Lab reports
2	Final exam
3	Quiz or midterm

## Course Outcomes

By the end of the course, students are expected to learn the following outcomes.

	Course Outcome	Student Assessment Method
1	Describe the basic principles and procedures to perform quantitative chemical analysis	Final exam Quiz or midterm
2	Conduct mathematical calculations in order to ascertain the correct values in quantitative analysis	Lab reports Final exam Quiz or midterm
3	Conduct laboratory experiments of quantitative and instrument analysis with accuracy	Lab reports
4	Write accurate lab reports that are logical and concisely written, and demonstrate strong skills in analytical chemistry	Lab reports
5	Work as a team to complete lab work	

## Outcome Maps

This chart shows the alignment of course outcomes to program-level learning outcomes. Program-level learning outcomes and the mapping scale are listed below the chart.

Course Outcomes	Program-level Learning Outcomes				
	1. Community-engaged Learning	2. Co-curricular Experiential Learning	3. Curriculum-integrated Experiential Learn...	4. Research-integrated Experiential Learnin...	5. Work-integrated Learning
1. Describe the basic principles and procedures to perform quan...					
2. Conduct mathematical calculations in order to ascertain the ...					
3. Conduct laboratory experiments of quantitative and instrumen...			T		
4. Write accurate lab reports that are logical and concisely wr...			C		
5. Work as a team to complete lab work					

## Program-level Learning Outcomes

1	Community-engaged Learning	Community-based research, community-engaged learning projects/ placements, co-curricular community engaged learning activities, co-curricular entrepreneurship activities
2	Co-curricular Experiential Learning	Competitions/ accelerators/ incubators, paraprofessional placement/ on campus employment, personal or professional development programs, supported volunteer experiences
3	Curriculum-integrated Experiential Learning	Creative performance/ exhibits, consulting projects, entrepreneurship courses, field schools, international/ cross-cultural learning experiences, labs/ experimentation, studio/ simulation
4	Research-integrated Experiential Learning	Course-based research, faculty-led research, individual research/ studentships, research assistantships
5	Work-integrated Learning	Cooperative education, internships, professional/ clinical practice

## Mapping Scale

The following are the mapping scales used to indicate the degree to which a program-level learning outcome is addressed by a particular course outcome.

■	Apply Concepts/Theories (A)	Apply concepts and/or theories
■	Develop Technical Skills (T)	Develop technical skills
■	Develop Core Skills (C)	Develop core skills
■	Employability (E)	Employability

## Additional Questions about the Course

**If this course includes community-engaged learning, please specify which type(s):**

- Community-based research (Not Selected)
- Community-engaged learning projects/ placements (Not Selected)
- Co-curricular community engaged learning activities (Not Selected)
- Co-curricular entrepreneurship activities (Not Selected)

**If this course includes co-curricular experiential learning, please specify which type(s):**

- Competitions/ accelerators/ incubators (Not Selected)
- Paraprofessional placement/ on campus employment (Not Selected)
- Personal or professional development programs (Not Selected)
- Supported volunteer experiences (Not Selected)

**If this course includes curriculum-integrated experiential learning, please specify which type(s):**

- Creative performance/ exhibits (Not Selected)
- Consulting projects (Not Selected)
- Entrepreneurship courses (Not Selected)
- Field schools (Not Selected)
- International/ cross-cultural learning experiences (Not Selected)
- Labs/ experimentation (Selected)
- Studio/ simulation (Not Selected)

**If this course includes research-integrated experiential learning, please specify which type(s):**

- Course-based research (Not Selected)
- Faculty-led research (Not Selected)
- Individual research/ studentships (Not Selected)
- Research assistantships (Not Selected)

**If this course includes community-engaged learning, please specify which type(s):**

- Cooperative education (Not Selected)
- Internships (Not Selected)
- Professional/ clinical practice (Not Selected)